

K123971

## 1.0 510(k) Summary

MAY 2 2013

510(K) Owner: CYNOSURE, INC.  
5 Carlisle Road  
Westford, MA 01886

Contact: Irina Kulinets  
VP of Regulatory Affairs and Quality Systems  
Cynosure, Inc.  
Telephone: 978-367-2350

Manufacturer: CYNOSURE, INC.  
5 Carlisle Road  
Westford, MA 01886  
Telephone: 978-256-4200

Date Prepared: December 21, 2012

Trade name: Cynosure 1064nm Diode Laser

Common name: Infrared Lamp

Classification name: 21 CFR 890.5500

Product Code(s): ILY (lamp, infrared, therapeutic heating)

Classification: Class II

Review Panel: General & Plastic Surgery

Predicate Devices (Claiming Substantial Equivalence):

Biolase Technology, Inc.  
eZlase™  
K083595

CYNOSURE, INC.  
HILT Family Laser  
K051537

CYNOSURE, INC.  
SmoothShapes XV® System  
K100230

Summary Description of the Device:

The Cynosure 1064nm Diode Laser is the laser device that delivers laser energy in the 1064nm wavelength. The Cynosure 1064nm Diode Laser is a non-invasive device that emits light energy to for the purpose of causing the therapeutic elevation of tissue temperature.

The Cynosure Diode laser is a compact diode laser system. The Cynosure Diode laser's overall size, cooling needs, and electrical service requirements are substantially reduced compared to other lasers with similar power capabilities.

Intended Use / Indications for Use:

The Cynosure 1064nm Diode Laser Device is intended to provide heating for the purpose of elevating tissue temperature for the temporary relief of minor muscle and joint pain and stiffness, minor arthritis pain, or muscle spasm; the temporary increase in local blood circulation; and/or the temporary relaxation of muscle.

Technological Characteristics:

The Cynosure 1064nm Diode Laser has equivalent technological characteristics and fundamental scientific technology as the FDA cleared ezlase™ (Biolase Technology, Inc.), the Cynosure HILT Family Laser (El En) and the Cynosure SmoothShapes XV® System, K083595, K051537 and K100230, respectively.

Performance Standards:

This device conforms to the Laser Performance Standard (21 CFR 1040). No additional performance standards have been promulgated under Section 514 of the Food, Drug and Cosmetic Act for these devices.

Performance Data:

Performance (bench) testing summaries are included in this submission.

In testing at 63W and 73W device increased and maintained the tissue temperature at 40 – 45°C

Substantial Equivalence:

There are no differences in technological characteristics or performance specifications between the ezlase™ (Biolase Technology, Inc.) and the Cynosure HILT Family Laser (El En) K083595, K051537 respectively and Cynosure's proposed device that would affect safety and efficacy. Both predicates utilize the same fundamental technology and the same indications for use as the proposed device. The Cynosure 1064nm Diode Laser has the equivalent delivered maximum fluence cleared previously by the FDA under 510(k) K100230 (SmoothShapes XV® System). The Cynosure 1064nm Diode Laser is as safe and effective as the predicate devices which have equivalent intended use/indications for use, principle of operation, technological characteristics and similar performance specifications. The Cynosure 1064 Diode Laser is substantially equivalent to the predicate devices and does not raise any additional questions of safety and effectiveness.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-002

Cynosure, Inc.  
% Ms. Irina Kulinets  
VP of Regulatory Affairs and  
Quality Systems  
5 Carlisle Road  
Westford, Massachusetts 01886

May 2, 2013

Re: K123971  
Trade/Device Name: Cynosure 1064nm Diode Laser  
Regulation Number: 21 CFR 890.5500  
Regulation Name: Infrared lamp  
Regulatory Class: Class II  
Product Code: ILY  
Dated: April 16, 2013  
Received: April 17, 2013

Dear Ms. Kulinets:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must

comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,  
FOR

**Peter DeRumr -S**

Mark N. Melkerson  
Acting Director  
Division of Surgical Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K123971

Device Name: Cynosure 1064nm Diode Laser

Indications For Use: The Cynosure 1064nm Diode Laser Device is intended to provide heating for the purpose of elevating tissue temperature for the temporary relief of minor muscle and joint pain and stiffness, minor arthritis pain, or muscle spasm; the temporary increase in local blood circulation; and/or the temporary relaxation of muscle.

Prescription Use   X  

AND/OR

Over-The-Counter Use           

(Part 21 CFR 801 Subpart D)

(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Neil R Ogden

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(Division Sign-Off) For MXM

Division of Surgical Devices

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